

This listing of claims will replace all prior versions and listings of claims in the above-identified application.

**Listing of Claim**

1. (Previously Presented) A computer program product, encoded in computer readable media, the computer program product for designing an integrated circuit chip, comprising:
  - a first set of instructions, executable on a computer system, the first set of instructions configured to model an input/output cell located on a perimeter of an integrated circuit, the model of the input/output cell comprising:
    - a model of a main cell; and
    - a model of a pre-cell; and
  - a second set of instructions, executable on the computer system, the second set of instructions configured to model a cover wherein the cover prevents an area occupied by the pre-cell from being used for any other purpose.
2. (Previously Presented) The computer program product as recited in claim 1, further comprising:
  - a third set of instructions, executable on the computer system, the third set of instructions configured to adjust signal timing of the main-cell and pre-cell models, wherein the signal timing adjustment to the main cell and pre-cell models approximates a signal timing of the input/output cell.
3. (Previously Presented) The computer program product as recited in claim 1,
  - wherein the model of input/output cell comprises a second pre-cell;
  - wherein the second set of instructions are configured to model a second cover, wherein the second cover prevents an area occupied by the second pre-cell from being used for any other purpose.

4. (Previously Presented) The computer program product as recited in claim 1, the computer program product further comprising:  
a database, wherein the database stores a netlist.
5. (Previously Presented) The computer program product as recited in claim 1, the computer program product further comprising:  
a third set of instructions, executable on the computer system, the third set of instructions configured to convert a netlist to a proprietary format.
6. (Previously Presented) The computer program product as recited in claim 1, further comprising:  
a third set of instructions, executable on the computer system, the third set of instructions configured to flatten a netlist by reading a description of a function of a cell and listing each function of the cell individual.
7. (Previously Presented) The computer program product as recited in claim 1, further comprising:  
a third set of instructions, executable on the computer system, the third set of instructions configured to identify a location of each pin in an integrated circuit.
8. (Previously Presented) The computer program product as recited in claim 1, further comprising:  
a third set of instructions, executable on the computer system, the third set of instructions configured to identify a location of each cell in an integrated circuit.
9. (Previously Presented) A method of modeling an input/output cell on a perimeter of an integrated circuit and at a location in a core area of the integrated circuit, the method comprising:  
modeling the input/output cell, wherein the input/output cell model comprises:  
a model of a main cell; and  
a model of a pre-cell; and

modeling a cover wherein the cover prevents an area designated to be occupied by the model of the pre-cell from being used for any other purpose.

10. (Original) An integrated circuit manufactured by the method as recited in claim 9.
11. (Previously Presented) The method as recited in claim 9, further comprising:  
adjusting a signal timing of the main-cell and pre-cell models, so that the signal timing of the main cell and the pre-cell models approximates a signal timing of a  
input/output cell.
12. (Previously Presented) The method as recited in claim 9, further comprising:  
modeling a second cover;  
wherein the input/output cell comprises a second pre-cell model, wherein the first cover prevents use of the area of the first pre-cell and the second cover prevents use of the area covered by the second pre-cell;  
wherein the second cover prevents an area designated to be occupied by the model of the second pre-cell from being used for any other purpose.
13. (Original) The method as recited in claim 9, further comprising:  
storing a netlist.
14. (Original) The method as recited in claim 9, further comprising:  
converting a netlist to a proprietary format.
15. (Original) The method as recited in claim 9, further comprising:  
listing each function of a cell individually.
16. (Previously Presented) The method as recited in claim 9, further comprising:  
identifying a location of each pin in the integrated circuit.
17. (Previously Presented) The method as recited in claim 9, further comprising:  
identifying a location of each cell in the integrated circuit.

18. (Previously Presented) A computer system, comprising:  
a memory; and  
a central processing unit, wherein the central processing unit is designed to execute instructions of a computer program stored in the memory, the computer program comprising:  
a first set of instructions configured to model an input/output cell located on a perimeter of an integrated circuit; the model of the input/output cell comprising:  
a model of a main cell; and  
a model of a first pre-cell; and  
a second set of instructions configured to model a cover wherein the cover prevents an area occupied by the first pre-cell from being used for any other purpose.
19. (Previously Presented) The computer system as recited in claim 18 wherein the computer program further comprises:  
a third set of instructions configured to adjust a signal timing of the main-cell and pre-cell models, so that the signal timing of the main cell and first pre-cell models approximates a signal timing of the input/output cell.
20. (Previously Presented) The computer system as recited in claim 18, wherein the computer program further comprises:  
a third set of instructions configured to model a second cover;  
wherein the input/output cell comprises a model a second pre-cell;  
wherein the second cover prevents use of an area occupied by the second pre-cell from being used for any other purpose.
21. (Original) The computer system as recited in claim 18, further comprising:  
a database, wherein the database stores a netlist.

22. (Previously Presented) The computer system as recited in claim 18 wherein the computer program further comprises:

a third set of instructions, the third set of instructions configured to convert a netlist to a proprietary format.

23. (Previously Presented) The computer system as recited in claim 18 wherein the computer program further comprises:

a third set of instructions, the third set of instructions configured to read a description of a function of a cell and list each function of the cell individually, wherein reading the description of the function of the cell and listing each function of the cell individually is referred to as flattening a netlist.